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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/594,255	08/18/2008	Keiichi Kitahara	5048/76889	1870

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COOPER & DUNHAM, LLP
30 Rockefeller Plaza
20th Floor
NEW YORK, NY 10112

EXAMINER	
ROBINSON, ELIZABETH A	
ART UNIT	PAPER NUMBER
1794	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/594,255	KITAHARA ET AL.	
	Examiner	Art Unit	
	Elizabeth Robinson	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 November 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5 and 8-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5 and 8-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application.
6) ☐ Other: _____.

DETAILED ACTION

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-3, 5 and 8-16 are currently pending.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 16, 2009 has been entered.

Claim Rejections - 35 USC § 112

Claims 1-3, 5 and 8-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 1 contains the limitation that the content of the ultraviolet absorber is 5 to 15 parts by weight based on 100 parts by weight of the ionizing radiation curable resin composition following curing. The claim further adds the limitation that the microparticles are contained in an amount

of 0.4 to 3 % by weight in the anti-ultraviolet layer when the layer is cured. However, there is no support in the instant specification that the weight ratios or weight percentages are based on the weight after curing. All other claims depend from claim 1 and thus, also fail to comply with the written description requirement.

Further, claim 2 adds the limitation that the weight percent of the organopolysiloxane is when the layer has been cured. However, there is no support in the instant specification that the weight percentage is based on the weight after curing

Claim Rejections - 35 USC § 103

Claims 1-3, 5 and 8-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Onozawa et al. (US 6,103,370) in view of Nakamura et al. (US 2002/0085284) and in view of the Ciba® TINUVIN® 328 or Ciba® CHIMASSORB® 81 product literature and the Ciba® TINUVIN® 1130 product literature.

Regarding claim 1, Onozawa (Column 1, lines 43-50) teaches a hard coat sheet comprising a base sheet and a coat layer. The base sheet (Column 2, lines 8-12) can be a plastic film. The film can be a glare preventing film for a computer display (Column 1, lines 6-14). The coat layer can comprise an ultraviolet absorbent (Column 3, lines 44-50). The resin of the coat layer can be cured by electron beam or ultraviolet radiation (ionizing radiation) (Column 2, lines 63-66). The coat layer can also comprise a filler, such as silica or acrylic powder, to provide an anti-glare property (Column 3, lines 19-28). The filler is present at 0.5 to 50 parts per 100 parts by weight of the acrylate resin. Since the acrylate resin can be the primary component of the coating

(Example 1), the weight percentage limitation for the filler meets the limitation for the microparticles. Since, as shown in the Examples, the solvents, which would be removed during curing, are listed separately from the resin, the weight ratios would be those of the cured composition.

Onozawa does not teach the size or preferred shape of the filler.

Nakamura (Paragraph 9) teaches an anti-glare film for use on an image display device. The binder of the anti-glare layer is formed from the ionizing radiation curable resins (Paragraph 43), including the same types of resins (Paragraph 42) as in Onozawa. The matting agent particles for the anti-glare layer include silica particles and cross-linked acrylic particles (Paragraph 59). The preferred shape of the matting agent is spherical, in order to obtain a consistent anti-glare property (Paragraph 60). The size of the matting particles is from 1 to 5 microns (Paragraph 57), in order to have a sufficient degree of anti-glare behavior, while still maintaining a sharp transmission.

It would be obvious to one of ordinary skill in the art to use the size and shape anti-glare particles of Nakamura, as the anti-glare particles of Onozawa, in order to form an anti-glare layer having a consistent anti-glare property with a sufficient degree of anti-glare behavior, while still maintaining a sharp transmission.

Onozawa (Column 3, lines 44-50) teaches that ultraviolet absorbers can be added to the coat layer and uses one example absorber, TINUVIN® 1130 and lower concentrations of absorber in the examples, but does not preclude using a different ultraviolet absorber or different loadings.

As shown in the TINUVIN® 1130 product literature, TINUVIN® 1130 has a molecular weight of 637.

The TINUVIN® 328 product literature shows that TINUVIN® 328 has a molecular weight of 351.5. The Ciba® CHIMASSORB® 81 product literature shows that CHIMASSORB® 81 has a molecular weight of 326.4. As shown by the transmittance spectrum of the ultraviolet absorbers, TINUVIN® 328 and CHIMASSORB® 81 have a lower transmittance in the ultraviolet spectrum than does TINUVIN® 1130 for the same loading. Thus, TINUVIN® 328 or CHIMASSORB® 81 will be a more effective ultraviolet absorber than TINUVIN® 1130. The second page of the TINUVIN® 328 product literature and the second page of the CHIMASSORB® 81 product literature teaches that the amount of TINUVIN® 328 or CHIMASSORB® 81 required for optimum performance should be determined in trials covering a concentration range. Thus, the amount of absorber would be a results effective variable that would determine the degree of ultraviolet absorption of the coat layer.

It would be obvious to one of ordinary skill in the art to use TINUVIN® 328 or CHIMASSORB® 81 as the ultraviolet absorber for the sheet of Onozawa, in order to have a more effective ultraviolet absorber than the example absorber and it would be obvious to one of ordinary skill in the art to vary the amount of absorber of Onozawa to amounts, including those presently claimed, in order to obtain a desired degree of ultraviolet absorption as is taught by the TINUVIN® 328 or CHIMASSORB® 81 product literature.

Regarding claim 2, Onozawa (Column 2, lines 35-62) teaches that the resin of the coat layer can also comprise 0.1 to 100 parts by weight of an organopolysiloxane based on 100 parts by weight of the acrylate resin. Since, as shown in the Examples, the solvents which would be removed during curing are listed separately from the resin, the weight ratios would be those of the cured composition.

Regarding claims 3 and 5, Onozawa (Column 3, lines 61-62) teaches that the coat layer preferably has a thickness from 1 to 10 microns. Since this thickness includes thicknesses smaller than the particle size, the limitation is met. Further, Nakamura (Paragraphs 48 and 49) teaches that the desired internal scattering of the anti-glare layer can be imparted by having the matting particles size larger than the layer thickness.

Regarding claims 8-10, Ciba® CHIMASSORB® 81 is a benzophenone based ultraviolet absorber.

Regarding claims 11-13, as stated above, the microparticles can be silica particles.

Regarding claims 14-16, Ciba® TINUVIN® 328 is a benzotriazole based ultraviolet absorber.

Claims 1, 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over McMan et al. (US 2004/0241469) in view of Onozawa et al. (US 6,103,370) and Nakamura et al. (US 2002/0085284).

McMan (Paragraphs 3-8) teaches a naphthalate polyester overcoated with a protective UV resistant coating comprising more than 10 weight percent benzotriazole UV absorber and a vinyl-functional crosslinkable film former. As shown in Example 63, the weight percentage of benzotriazole is based on the total coating solids and thus, would be those of the cured composition. The ionizing radiation curable resin is the other primary component of the coating. The naphthalate polyester (plastic) can be a multilayer optical film (Paragraph 43). The vinyl-functional crosslinkable film former can be cured by electron beam (Paragraph 31). The UV absorber can be TINUVIN® 328 (Paragraph 51) which has a molecular weight of 351.5. The coating composition can also comprise fillers having an average particle diameter of 1 to 10 microns which impart a hazy or diffuse appearance to the cured coating (Paragraph 56). McMan (Paragraph 56) teaches that the amount and type of the filler will be apparent to those skilled in the art.

McMan does not explicitly teach the loading of the microparticles, their material or their shape.

Onozawa teaches that a coat layer can also comprise a filler, such as silica or acrylic powder, to provide an anti-glare property (Column 3, lines 19-28). The filler is present at 0.5 to 50 parts per 100 parts by weight of the acrylate resin.

It would be obvious to one of ordinary skill in the art to use the filler and filler amount of Onozawa, as the filler and filler amount of McMan, in order to have a specific filler that has been shown to be effective as an anti-glare (provides a hazy or diffuse appearance) to a cured optical coating. Since the acrylate resin of McMan (Paragraph

50) can be the primary component of the coating, the weight percentage limitation for the filler meets the limitation for the microparticles.

Nakamura (Paragraph 9) teaches an anti-glare film for use on an image display device. The matting agent particles for the anti-glare layer include silica particles and cross-linked acrylic particles (Paragraph 59). The preferred shape of the matting agent is spherical, in order to obtain a consistent anti-glare property (Paragraph 60).

It would be obvious to one of ordinary skill in the art to use spherical filler particle for the filler particle of McMan, in order to have a consistent anti-glare property for the coated optical film.

Response to Arguments

Applicant's arguments filed November 16, 2009 have been fully considered but they are not persuasive.

Applicant argues that the weight percentages of claim 1 are supported by the specification. However, the rejection was not over the numerical values of the range of the filler, but rather that there is no support in the instant specification that the weight ratios or weight percentages are based on the weight after curing. The addition of the limitation that the weight percentage of the microparticles is based on the weight when the layer has been cured is also not supported.

Due to amendments to the claims the 35 U.S.C. 112, second paragraph rejections from the August 13, 2009 Office Action are withdrawn.

Applicant argues that none of the references teach the claimed combination of an ionizing radiation curable resin, spherical microparticle of a particular size, shape and concentration and an ultraviolet absorber having a specific formula weight and concentration. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); In re Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Regarding the 35 U.S.C. 103(a) rejection over Onozawa et al. (US 6,103,370) in view of Nakamura et al. (US 2002/0085284) and in view of the Ciba® TINUVIN® 328 and 1130 product literature, while Nakamura and the Ciba® TINUVIN® 328 and 1130 product literature do not disclose all the features of the present claimed invention, Nakamura and the Ciba® TINUVIN® 328 and 1130 product literature are used as teaching references, and therefore, it is not necessary for these secondary references to contain all the features of the presently claimed invention, In re Nievelt, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), In re Keller 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather these references teach certain concepts, namely the preferred size and shape of the filler to be used in the amount as taught by Onozawa and the effectiveness and loading for an ultraviolet absorber, and in combination with the primary reference, disclose the presently claimed invention. For example, Applicant argues that Nakamura does not suggest spherical particles having a mean particle diameter of 1 to 20 microns at a specific weight percentage. However, Nakamura

teaches the benefits of a spherical particle (Paragraph 60) and a specific size 1 to 5 microns (Paragraph 57). The particle loading for the anti-glare particles is taught by the primary reference, Onozawa.

Regarding the 35 U.S.C. 103(a) rejection over McMan et al. (US 2004/0241469) in view of Onozawa et al. (US 6,103,370) and Nakamura et al. (US 2002/0085284), while Onozawa and Nakamura do not disclose all the features of the present claimed invention, Onozawa and Nakamura are used as teaching references, and therefore, it is not necessary for these secondary references to contain all the features of the presently claimed invention, In re Nievelt, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), In re Keller 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather these references teach certain concepts, namely the preferred size, shape, material and loading of the filler, and in combination with the primary reference, disclose the presently claimed invention. For example, the primary reference McMan teaches the particle diameter of the filler particles (Paragraph 56) and that the amount and type of filler will be apparent to those skilled in the art. The teachings of Onozawa and Nakamura are used to show the loadings, material and shape of these fillers as used in the art.

Applicant argues that the examples of Onozawa only propose adding 1 to 1.5 parts by weight of absorber. However, "applicant must look to the whole reference for what it teaches. Applicant cannot merely rely on the examples and argue that the reference did not teach others." In re Courtright, 377 F.2d 647, 153 USPQ 735,739 (CCPA 1967). While the examples of Onozawa show some absorber loading

examples, Onozawa does not preclude other absorber loadings. As set forth above, it would be obvious to one of ordinary skill in the art to vary the amount of absorber of Onozawa to amounts, including those presently claimed, in order to obtain a desired degree of ultraviolet absorption as is taught by the TINUVIN® 328 product literature.

Applicant argues that none of the references teach or suggest that the spherical particles have the effect of suppressing the yellowing of the anti-ultraviolet layer. However, since the combination of the references discloses the same combination as in the instant application this structure would intrinsically have this property. The fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Robinson whose telephone number is (571)272-7129. The examiner can normally be reached on Monday- Friday 8 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on 571-272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/E. R./
Elizabeth Robinson
Examiner, Art Unit 1794

December 4, 2009

/Callie E. Shosho/
Supervisory Patent Examiner, Art Unit 1794